## **Claims**

## What is claimed is:

- [c1] A method of fractional replication in a directory server, comprising:
  - determining a fractional portion of an entry stored on a primary server using a replication agreement;
  - replicating the fractional portion from the primary server to a replica server creating a fractional replica; and
  - connecting a client computer to the fractional replica;
  - wherein the client computer has knowledge of only the fractional replica.
- [c2] The method of claim 1, further comprising:
  using a query rule to govern responses to questions in the absence of entries on the
  replica server.
- [c3] The method of claim 1, further comprising:
  using a query rule to govern responses to questions in the absence of attributes of
  the entry on the replica server.
- [c4] The method of claim 1, further comprising:

  updating the fractional portion using a plurality of change types stored in a change record in a database.
- [c5] The method of claim 1, wherein an entry filtering rule database is stored in the replication agreement.
- [c6] The method of claim 1, wherein the replication agreement comprises a list of replicated attribute types held in an element.

- [c7] The method of claim 6, wherein the element is empty and all attributes of the entry are to be replicated.
- [c8] The method of claim 6, wherein the list of replicated attribute types comprises an include list.
- [c9] The method of claim 6, wherein the list of replicated attribute types comprises an exclude list.
- [c10] A method of fractional replication in a directory server, comprising:

  determining a fractional portion of an entry stored on a primary server using a
  replication agreement;
  - replicating the fractional portion from the primary server to a replica server creating a fractional replica;
  - using a query rule to govern responses to questions in the absence of entries on the replica server;
  - using a query rule to govern responses to questions in the absence of attributes of the entry on the replica server;
  - updating the fractional portion using a plurality of change types stored in a change record in a database; and
  - connecting a client computer to the fractional replica;
  - wherein the client computer has knowledge of only the fractional replica.
- [c11] A method of transmitting updates to a fractional portion, comprising:
  - retrieving a change record stored in a database;
  - making a pass-through of a plurality of change types from the change record stored in the database; and
  - performing an update function to the fractional portion based on the change type.
- [c12] The method of claim 10, wherein the change type comprises an add operation.

- [c13] The method of claim 10, wherein the change type comprises a delete operation
- [c14] The method of claim 10, wherein the change type comprises a modify operation.
- [c15] The method of claim 10, wherein the change type comprises a moddn operation.
- [c16] A directory server system allowing fractional replication, comprising:

  a primary server database comprising a plurality of entries;

  an entry filtering rule database to determine a fractional portion of an entry stored on the primary server to be replicated using a replication agreement; and a replica server that replicates the fractional portion received from the primary

server creating a fractional replica;

- wherein a client computer is connected to the fractional replica having knowledge of only the fractional replica of the entry.
- [c17] The system of claim 16, further comprising:

  a query rule to govern responses to questions in the absence of entries on the replica server.
- [c18] The system of claim 16, further comprising:

  a query rule to govern responses to questions in the absence of attributes of the entry on the replica server.
- [c19] The system of claim 16, further comprising:

  an updated fractional portion updated by using a plurality of change types stored in a change record in a database.
- [c20] The system of claim 16, wherein the replication agreement comprises a list of replicated attribute types held in an element.
- [c21] The system of claim 20, wherein the element is empty and all attributes of the entry are to be replicated.

- [c22] The system of claim 20, wherein the list of replicated attribute types comprises an include list.
- [c23] The system of claim 20, wherein the list of replicated attribute types comprises an exclude list.
- [c24] A directory server system allowing fractional replication, comprising:
  - a primary server database comprising a plurality of entries;
  - an entry filtering rule database to determine a fractional portion of an entry stored on the primary server to be replicated using a replication agreement;
  - a replica server replicates the fractional portion received from the primary server creating a fractional replica;
  - a query rule to govern responses to questions in the absence of entries on the replica server;
  - a query rule to govern responses to questions in the absence of attributes of the entry on the replica server; and
  - an updated fractional portion updated by using a plurality of change types stored in a change record in a database;
  - wherein a client computer is connected to the fractional replica having knowledge of only the fractional replica of the entry.
- [c25] A directory server system allowing fractional replication, comprising:
  - means for determining a fractional portion of an entry stored on a primary server using a replication agreement;
  - means for replicating the fractional portion from the primary server to a replica server creating a fractional replica; and
  - means for connecting a client computer to the fractional replica;
  - wherein the client computer has knowledge of only the fractional replica.

- [c26] The system of claim 25, further comprising:

  means for using a query rule to govern responses to questions in the absence of
  entries on the replica server.
- [c27] The system of claim 25, further comprising:

  means for using a query rule to govern responses to questions in the absence of attributes of the entry on the replica server.
- [c28] The system of claim 25, further comprising:

  means for updating the fractional portion using a plurality of change types stored

  in a change record in a database.
- [c29] A directory server system allowing fractional replication, comprising:

  means for determining a fractional portion of an entry stored on a primary server using a replication agreement;
  - means for replicating the fractional portion from the primary server to a replica server creating a fractional replica;
  - means for connecting a client computer to the fractional replica;
  - means for using a query rule to govern responses to questions in the absence of entries on the replica server;
  - means for using a query rule to govern responses to questions in the absence of attributes of the entry on the replica server; and
  - means for updating the fractional portion using a plurality of change types stored in a change record in a database;
  - wherein the client computer has knowledge of only the fractional replica.